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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/643,043

08/18/2003

Scott D. Brandenburg

DP-308286

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07/27/2005

DELPHI TECHNOLOGIES, INC.

M/C 480-410-202

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EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,043

Applicant(s)

BRANDENBURG ET AL.

Examiner

Alexander O. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/9/05 & 5/12/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-40 is/are pending in the application.
- 4a) Of the above claim(s) 21-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Serial Number: 10/643043 Attorney's Docket #: DP-308286

Filing Date: 8/13/2003;

Applicant: Brandenburg et al.

Examiner: Alexander Williams

Applicant's Amendments filed 3/9/05 and 5/12/05 to the election of Group I (claims 1 to 20), filed 9/23/04, has been acknowledged.

This application contains claims 21 to 40 drawn to an invention non-elected without traverse. Applicant's request that claims 21-40 of Group II to be canceled without prejudice was not canceled in proper amendment to the claims form. If Applicant desired to cancel these claims at this time, a proper amendment is required.

Claims 2 have been canceled.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Initially, and with respect to claims 1 and 13, note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this

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issue); In re Fitzgerald, 205 USPQ 594, 596 (CCPA); In re Marosi et al., 218 USPQ 289 (CAFC); and most recently, In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that Applicant has burden of proof in such cases as the above case law makes clear.

Claims 1 and 3 to 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent Application publication # 2003/0150635 A1).

For example, in claim 1 and similar claim 13, Smith (figures 1 to 25) specifically figure 25 show an electronic assembly comprising: a housing member comprising a heat-conductive member **1542**; a substrate **1512** supported by the housing member, the substrate having conductors **1520** on a surface thereof; a circuit device **1524b** mounted to the substrate with solder connections **1550a** on a first surface of the device that are registered with the conductors on the substrate, the device having a second surface oppositely disposed from the first surface; and a solid solder joint **1550b** consisting essentially of indium perform into which (**see paragraph [0047]**) one or more alloying constituents have diffused to increase the melting temperature of the solder joint above that of indium, the solder joint bonding the second surface of the device to the heat-conductive member and an overmold compound **1534** that encapsulates the substrate, the device, and the solder joint on the housing member.

[0047] Solders having compositions intermediate between the two low-melting point solders illustrated in Table 1 can be used. Other suitable low-melting solders include the solder sold under the trademark Indalloy by the Indium Corporation of America, in Clinton, N.Y. For example, Indalloy Number 8 has a melting point of about 93.degree. C., whereas Indalloy Number 117 has a melting point of about 47.degree. C. Still other low-melting solders include other combinations of metals selected from the group consisting of cadmium, bismuth, tin, lead and indium in various proportions, with or without other metals. Additional fusible metals include mercury and mercury containing alloys.

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6. The electronic assembly according to claim 1, Smith show wherein a thermally-conductive lubricant is not present between the second surface of the device and the heat-conductive member.
9. The electronic assembly according to claim 8, Smith show wherein an overmold compound does not encapsulate the substrate and the device.
11. The electronic assembly according to claim 1, Smith show wherein a portion of the housing member **26** defines the heat-conductive member.
12. The electronic assembly according to claim 1, Smith show wherein the assembly lacks any biasing means that contacts a surface of the substrate opposite the device and urges the device into contact with the heat-conductive member.
18. The electronic assembly according to claim 13, Smith show wherein the housing comprising a base member and a cover member that enclose the substrate and the device .
19. The electronic assembly according to claim 18, Smith show wherein an overmold compound does not encapsulate the substrate and the device.
20. The electronic assembly according to claim 13, Smith show wherein a portion of the housing defines the pedestal.

As to the grounds of rejection under section 103, see MPEP § 2113.

Response

Applicant's arguments filed 3/9/05 and 5/12/05 have been fully considered, but are moot in view of the new grounds of rejections detailed above.

The insertion of Applicant's additional claimed language, for example, "claims 1 and 13" cause for further search and consideration to make this action final.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION.

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IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

The listed references are cited as of interest to this application, but not applied at this time.

Field of Search	Date
U.S. Class and subclass: 257/675,712,713,717,720,707,710,704,778,737,738,714	12/4/04 7/22/05
Other Documentation: foreign patents and literature in 257/675,712,713,717,720,707,710,704,778,737,738,714	12/4/04 7/22/05
Electronic data base(s): U.S. Patents EAST	12/4/04 7/22/05

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander O Williams
Primary Examiner
Art Unit 2826

AOW
7/22/05